

# Work Order ID 71275

Friday, June 24, 2011 3:44:36 PM

*ASAP*



Item ID: D3173-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Beam Assembly

Start Date: 6/24/2011 Start Qty: 3.00



Cust Item ID:

Required Date: 6/30/2011 Req'd Qty: 3.00

Customer:

Reference:

Approvals:

Process Plan:

*[Signature]*

Date: 11-06-27

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start



Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D3173

Rev B

100

0.00



BAND SAW

Bandsaw

Memo

0.00

Jeaspa Bandsaw

Cut blank: 56" long  
Machine holes as per Folio FA295 and Dwg D3173  
Identify as D3173-1

*22 11-06-27*

*3*

110

0.00



HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

Machine holes as per Folio FA295 and Dwg D3173 Identify as D3173-1

*cm 11/06/27*

*3*

*[Signature]*

120

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

*cm 11/06/27*

*3*

*[Signature]*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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Page 2

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Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130



QC

Quality Control

QC8- Inspect parts - second check

0.00

B-a 11/06/28

3

0

Memo

0.00

140



Small Fab

Small Fab

Small Fab

0.00

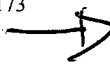
0.00

11/06/29

3

Memo

1-Drill Ø0.316" holes as per Dwg D3173  
2-C'sink holes as per Dwg D3173  
3-deburr



11/06/29 (30)

150



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

0.00

11/06/29

3

Memo



W/O:		WORK ORDER CHANGES					
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Page 3

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Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

160

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

3  $\phi$  BL 11-6-30.

170

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

3x  $\phi$  M-L 4/1/07/05

180

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

Powder Coating

Ensure Nut Plate thread is covered.

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

10:00  
320 °F  
10:30

3x  $\phi$  M-L 4/1/07/05

M #5 117745

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**Work Order ID 71275**

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Page 4

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Cust Item ID:

Required Date: 6/30/2011 Req'd Qty: 3.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190  QC Quality Control	QC3- Inspect Part Finish  Memo	0.00  0.00				3	0	44/07/03	
200  Small Fab Small Fab Small Fab	Small Fab  Memo Assemble per Dwg D3173. Install Mounting Lug as per Dwg D3173. D3175-041 is included in K10017 BOM.	0.00  0.00						4/07/06	(3)
210  QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00  0.00						(3)	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Page 5

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Start Date: 6/24/2011 Start Qty: 3.00



Cust Item ID:

Required Date: 6/30/2011 Req'd Qty: 3.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

220

Identify as per dwg & Stock Location: S1E

0.00



Packaging

Memo

0.00

Packaging

11/7/08

30

230

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/7/11

ME  
11-07-08

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

# Picklist Print

Monday, June 27, 2011 10:48:37 AM

Page 1

Work Order ID: 71275

Parent Item: D3173-041

Parent Item Name: Beam Assembly



Start Date: 6/24/2011

Required Date: 6/30/2011

Start Qty: 3.00

Required Qty: 3.00

Comments: IPP A1102.12.0511New issue !KJ/RF11  
IPP Rev:B 08-09-25 update procedure DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6TR4.0X2.0W1 25		Purchased			No		f	25.0000		14.1			



6061-T6 Rect Tube 4.0 x 2.0 x .125w



22 11.6.27

## Location

MAT005

113216 ✓

114352 ✓

## Loc Qty

25

5

20

## Loc Code

4.968'  
9.333'

14.301'

# Picklist Print

Tuesday, July 05, 2011 11:32:13 AM

Page 2

Work Order ID: 71275

Parent Item: D3173-041

Parent Item Name: Beam Assembly



Start Date: 6/24/2011

Required Date: 6/30/2011

Start Qty: 3.00

Required Qty: 3.00

Comments: IPP A1102.12.05 New issue KJ/RF  
IPP Rev:B 08-09-25 update procedure DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN3-5A  Bolt		Purchased	No				Each	1,089.000		8		6/11/07/06	
						<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>					
						ST350	1089						
						115371	289						
						117423	800						
AN5-23A  Bolt		Purchased	No				Each	33.0000		24		6/11/07/06	
						<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>					
						ST339	33						
						113121	20						
						113288	12						
						19278	1						
AN960JD10  Washer	NAS1149D0363J	Purchased	No				Each	0.0000		8		6/11/07/06	
AN960JD516  Washer	NAS1149D0563J	Purchased	No				Each	0.0000		4		6/11/07/06	

LD 117291 (24)

LD 1118206 (12)

# Picklist Print

Tuesday, July 05, 2011 11:32:13 AM

Page 3

Work Order ID: 71275

Parent Item: D3173-041

Parent Item Name: Beam Assembly

Start Date: 6/24/2011

Required Date: 6/30/2011

Start Qty: 3.00

Required Qty: 3.00

D3175-041

Manufactured No

Each

8.0000



Mounting Lug

Location

Loc Qty

Loc Code

ST473

8

53378

6

53458

2

D3178-041

Manufactured No

Each

37.0000



Nut Plate

Location

Loc Qty

Loc Code

ST039

37

25298

2

53459

7

53810

28

MS20601-AD4W4

Purchased

No

Each

291.0000



Rivet

Location

Loc Qty

Loc Code

ST322

291

113064 -

91

113749

200

2  
EP 5/11/07/06

2  
EP 5/11/07/06

8  
EP 5/11/07/06

24

# Picklist Print

Tuesday, July 05, 2011 11:32:13 AM

Page 4

Work Order ID: 71275

Parent Item: D3173-041

Parent Item Name: Beam Assembly



Start Date: 6/24/2011

Required Date: 6/30/2011

Start Qty: 3.00

Required Qty: 3.00

MS21042L5

Purchased

No

Each

1,431.000



Nut



2

GP 11/07/06

Location

Loc Qty

Loc Code

ST300

1431

116105

5

116548

232

117441

498

117591

100

117611 -

100

118179

496

6

Tuesday, July 05, 2011 11:32:13 AM

Shop Packet Print

Page 3

D3065-5DART AEROSPACE LTD		Work Order:	71275
Description: Beam		Part Number:	D3173-1
Inspection Dwg: D3173	Rev: B	Page 1 of 1	

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
56.00	+/-0.030	55.990	—		M-tape	ML-2
23.629	+/-0.010	23.629	—		"	"
15.33	+/-0.030	15.330	—		"	"
2.00	+/-0.030	2.005	—		Vern	ML-7
4.00	+/-0.030	3.984	—		"	"
0.500	+/-0.010	.500	—		"	"
1.720	+/-0.005	1.719	—		"	"
1.000	+/-0.005	1.000	—		"	"
0.860	+/-0.005	.861	—		"	"
<del>Ø0.203</del>	<del>+0.005/-0.000</del>	N/A This Batch only 11-06-27				
Ø0.129	+0.005/-0.000	Ø.129	—			
Ø.316	±.005	.316	—		RA26	Vern
1.000	±.010	.996	—		"	"
9.000	±.010	9.003	—		CNC 02	"

Measured by: <i>CML</i>	Audited by: <i>B.A</i>	Prototype Approval:	N/A
Date: 11/06/27	Date: 11/06/28	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.02.25	New Issue	P/O D3173-041	KJ/RF

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries





DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3173	REV. B SHEET 1 OF 3
DATE 03.01.07		TITLE BEAM ASSEMBLY	SCALE NTS
A	02.12.03	NEW ISSUE	
B	03.01.07	REMOVE PIP PINS	

## PARTS LIST

QTY	PART NUMBER	DESCRIPTION
X	D3173-041	BEAM ASSEMBLY
1	D3173-1	BEAM
2	D3175-041	MOUNTING LUG
2	D3178-041	NUT PLATE
8	AN960JD10	WASHER
4	AN960JD516	WASHER
2	MS21042L5	NUT
8	MS20601AD4W4	RIVET
8	AN3-5A	BOLT
2	AN5-23A	BOLT

## NOTES

### D3173-1 BEAM:

- 1) PART IS SYMMETRICAL ABOUT CENTERLINE
- 2) MATERIAL: 6061-T6 RECTANGULAR TUBING, 4" x 2" x 0.125" WALL (QQ-A-200/8)  
(REF DART SPEC. M6061T6TR4.0x2.0W125)
- 3) BREAK ALL SHARP EDGES 0.010-0.020
- 4) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3 OUTSIDE ONLY
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

RELEASED  
03.01.20

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 71275

*M11-06-27*

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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

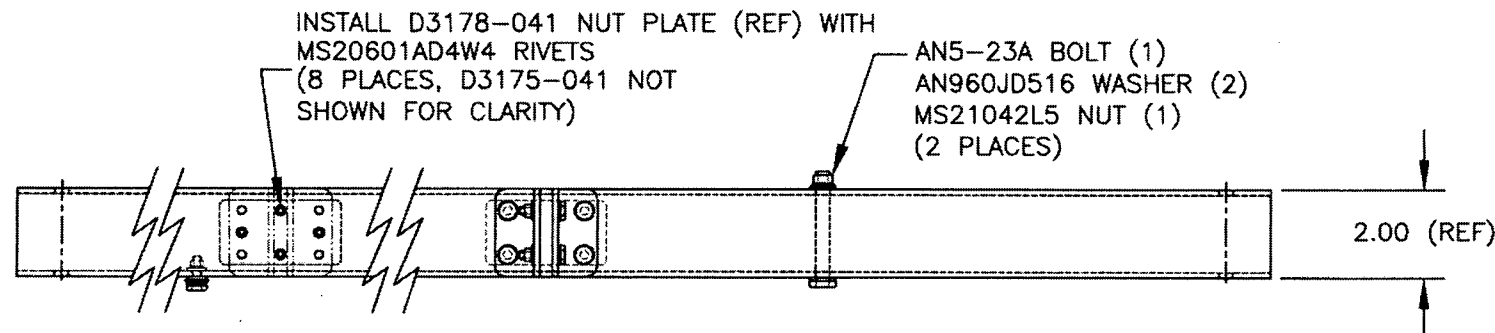
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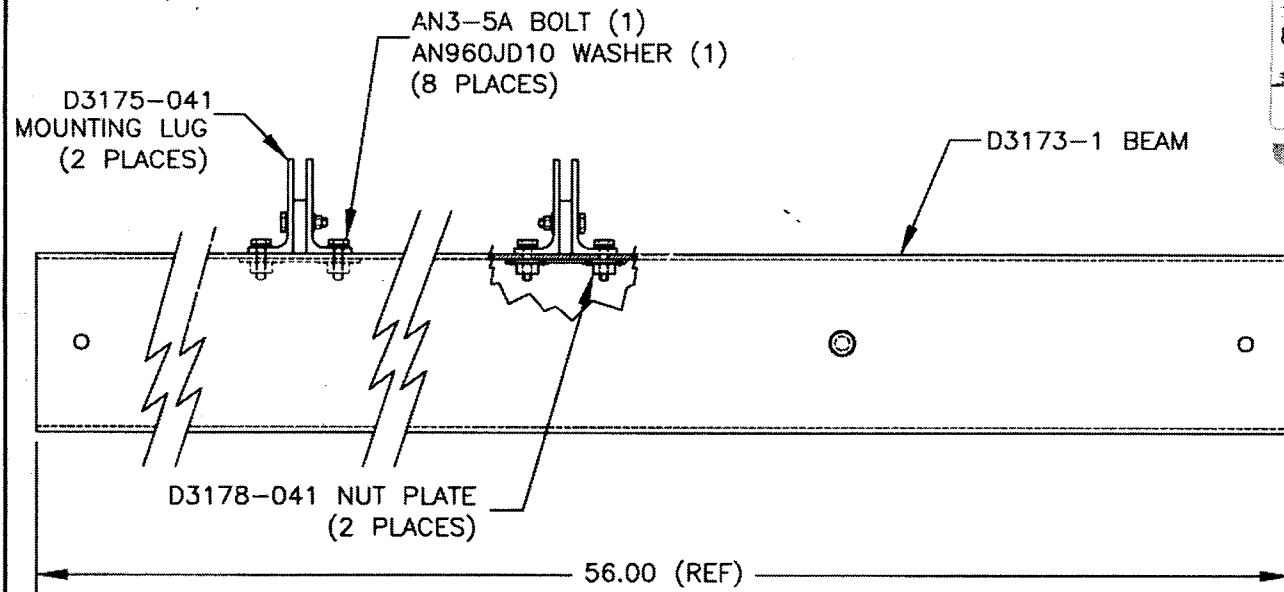
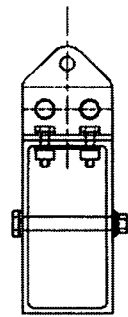


DESIGN	DRAWN BY	DART AEROSPACE LTD
CHECKED	APPROVED	HAWKESBURY, ONTARIO, CANADA
DATE	DRAWING NO.	REV. B
03.01.07	D3173	SHEET 2 OF 3
	TITLE	SCALE
	BEAM ASSEMBLY	1:4



w/b 71275

RELEASED  
03.01.07



**D3173-041 BEAM ASSEMBLY**

W/O:		WORK ORDER CHANGES					
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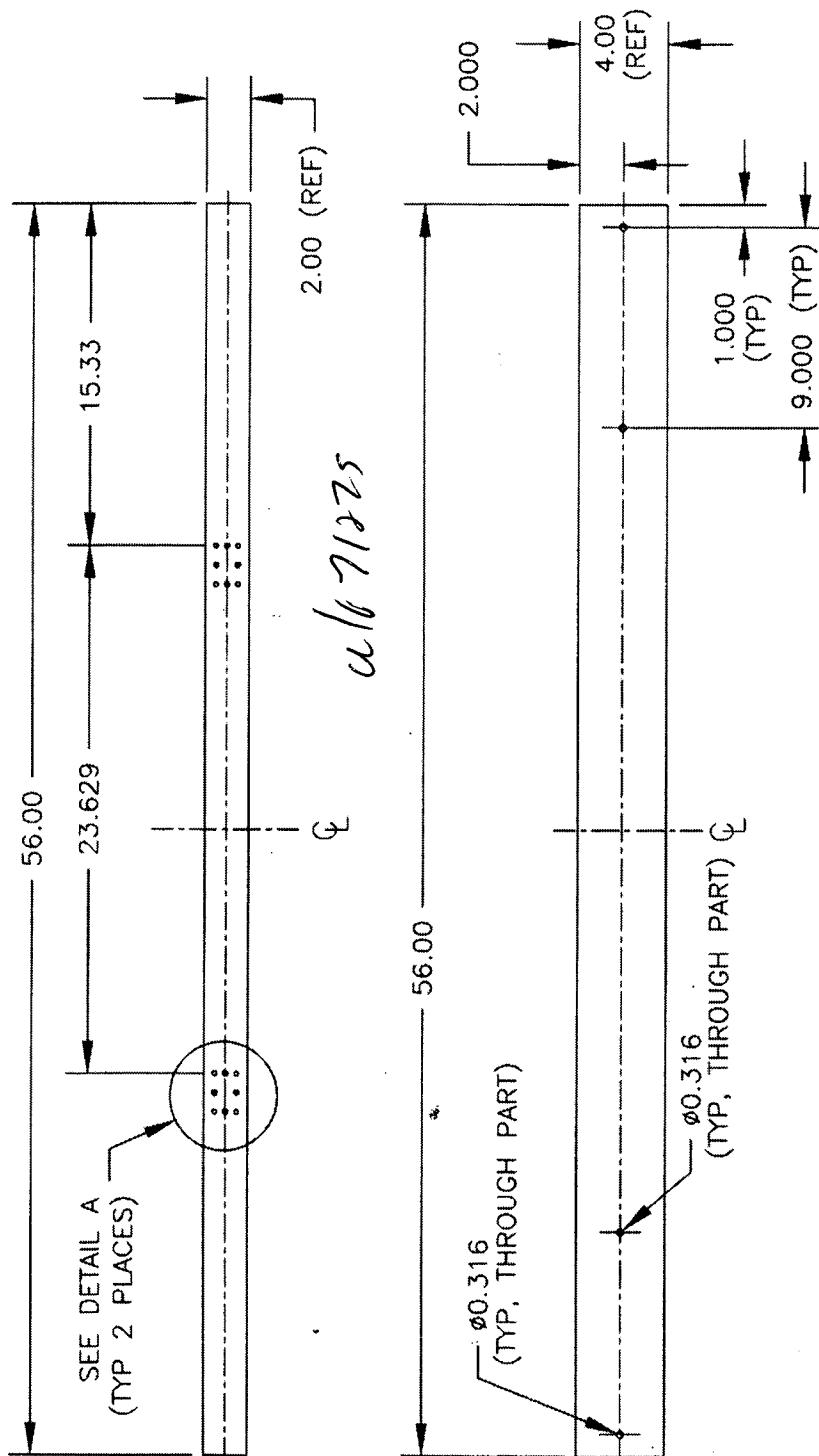
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CHECKED <i>#</i>	APPROVED <i>#</i>	DRAWING NO. D3173	REV. B SHEET 3 OF 3
DATE 03.01.07		TITLE BEAM ASSEMBLY	SCALE 1:8

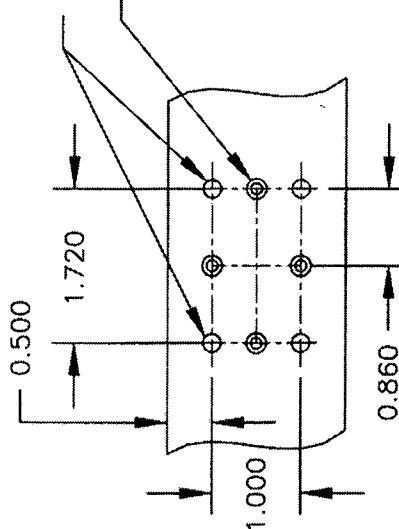
**D3173-1 BEAM**



RELEASED  
03.01.20

Ø0.203 (TYP 8 PLACES TOTAL,  
 DRILL THIS SURFACE ONLY)  
 - DRILL #30 (Ø0.129)  
 C'SINK Ø0.235x100"  
 (TYP 8 PLACES TOTAL,  
 DRILL THIS SURFACE ONLY)

**DETAIL A**  
**SCALE 1:2**



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